

REMARKS

Applicants appreciate the consideration of the present application afforded by the Examiner. Claims 1-23 were pending prior to the Office Action. Claims 24-27 have been added through this Reply. Therefore, claims 1-27 are pending. Claims 1, 6, 7, 12, 13, 16, 17, 22, 23, and 27 are independent. Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

Claim Objections

Applicants have amending claim 7 as suggested by the Examiner in the Office Action. Accordingly, Applicants respectfully request that the objection to claim 7 be withdrawn.

Claim Rejections - 35 U.S.C. §102

Claims 1, 3, 4, 8, 12, 13, 17, 18, 22 and 23 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by JP 1997-224069 A to Ozawa ("Ozawa"). Applicants submit the Examiner has failed to establish a *prima facie* case of anticipation and traverse the rejection.

In order to establish a *prima facie* case of anticipation under 35 U.S.C. §102, the cited reference must teach or suggest each and every element in the claims. *See M.P.E.P. §2131; M.P.E.P. §706.02*. Accordingly, if the cited reference fails to teach or suggest one or more claimed elements, the rejection is improper and must be withdrawn.

Regarding Independent Claims 1, 12, 13, 22, and 23:

The Examiner indicates that he considers paragraphs [0022]-[0023] of Ozawa to allegedly disclose that the generation of a connection handle makes it possible to simultaneously establish both a connection between the two IrLAP layers and a connection between the two IrLMP layers. *See Office Action, pages 3-4*.

However, neither a packet of an SNRM frame nor that of a UA frame are provided with an area for storing a connection handle. Therefore, a connection handle cannot be transmitted by transmission of an SNRM frame or a UA frame. Furthermore, Ozawa is silent regarding the transmission of a new connection handle.

In general, a connection between two IrLAP layers is established by transmitting an SNRM frame and a UA frame between the transmitter and the receiver. On the other hand, there is a connection packet of the IrLMP layer. A connection between two IRLMP layers is established in such a manner that the connection packet of the IrLMP layer is stored in an I (information) packet of the IrLAP layer so that the I packet is transmitted. Since this explanation is omitted in Ozawa, the reference invites the misinterpretation that only transmission of an SNRM frame and a UA frame allows a connection to be simultaneously established between two IrLAP layers and between two IrLMP layers. This is not actually the disclosure of Ozawa. The Examiner's attention is respectfully directed towards the English-language translation of paragraphs [0022] through [0025] of Ozawa, as attached in Appendix A.

Nowhere in the cited paragraphs, nor in the reference as a whole, does Ozawa disclose a *"connection request generating means for generating a connection request containing a command and data required for connecting a number of contiguously adjacent layers among the plurality of communication layers"*, as recited in claim 1. The SNRM frame and UA frame of Ozawa establish a connection between the two IrLAP layers, but do not establish also a connection between the two IrLMP layers.

Therefore, at least because Ozawa fails to teach or suggest each and every claimed element, independent claim 1 is distinguishable from the prior art. Ozawa likewise fails to disclose the comparable features of independent claims 12, 13, 17, 22, and 23.

Dependent claims 3, 4, 8, and 18 are also distinguishable from the prior art at least due to their dependence from claims 1 and 13, directly or indirectly. Accordingly, Applicant respectfully requests that the rejection of claims 1, 3, 4, 8, 12, 13, 17, 18, and 21-23 under 35 U.S.C. § 102(b) be withdrawn.

Regarding Independent Claims 6 and 16:

Paragraphs [0050] through [0053] of Takahashi describe a disconnection procedure carried out across the IrLMP layer and the IrLAP layer. However, Takahashi merely describes a general disconnection procedure of IrDA such that a connection at the IrLMP layer level is disconnected by using a data packet of the IrLAP layer. Then, a connection at the IrLAP layer

level is disconnected by using a DISC packet of the IrLAP layer. In other words, Takahashi fails to disclose a technique by which disconnection request information of the upper layer (i.e., the IrLMP layer) is stored in a disconnection packet of the IrLAP layer.

Accordingly, Takahashi cannot teach the feature of the claimed invention regarding *“generating a disconnection request containing a command and data required for disconnecting a number of contiguously adjacent layers among the plurality of communication layers”*.

The Examiner’s attention is respectfully directed towards the English-language translation of paragraphs [0050] through [0053] of Takahashi, as attached in Appendix A.

Nowhere in the cited paragraphs, nor in the reference as a whole, does Takahashi disclose a *“disconnection request generating means for generating a disconnection request containing a command and data required for disconnecting a number of contiguously adjacent layers among the plurality of communication layers”*, as recited in claim 6. Therefore, at least because Takahashi fails to disclose each and every claimed element, independent claim 6 is distinguishable from the prior art. Takahashi likewise fails to disclose the comparable features of independent claims 16.

Accordingly, Applicant respectfully requests that the rejection of claims 6 and 16 under 35 U.S.C. § 102(b) be withdrawn.

Claim Rejections - 35 U.S.C. §103(a)

Claims 2 and 14 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ozawa in view of US 7,363,534 to Krishnamurthy et al. (“Krishnamurthy”).

Claims 5 and 15 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ozawa in view of US 5,515,508 to Pettus et al. (“Pettus”).

Claim 7 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ozawa in view of US 2003/0169744 to Elzur (“Elzur”) and further in view of US 6,865,687 B1 to Ichimi (“Ichimi”).

Claim 9 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ozawa in view of US 2005/0014468 A1 to Salokannel (“Salokannel”).

Claim 10 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ozawa in view of US 2003/0107651 A1 to Chen (“Chen”).

Claims 11, 19, 20 and 21 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ozawa in view of US 2004/0081436 A1 to Tada et al. (“Tada”).

For a 35 U.S.C. § 103 rejection to be proper, a *prima facie* case of obviousness must be established. *See M.P.E.P. 2142*. One requirement to establish *prima facie* case of obviousness is that the prior art references, when combined, must teach or suggest all claim limitations. *See M.P.E.P. 2142; M.P.E.P. 706.02(j)*. Thus, if the cited references fail to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

Regarding independent claim 7:

In this instance, the combination of Ozawa, Elzur, and Ichimi fails to teach or suggest each and every limitation of claim 7. As demonstrated above, Ozawa fails to disclose or suggest “*connection request generating means for generating a connection request containing a command and data required for connecting a number of contiguously adjacent layers among the plurality of communication layers*” as recited in claim 1. Based on the rationale presented above with respect to claim 1, Ozawa additionally fails to disclose or suggest “*first connection request generating means for generating a connection request containing a command and data required for connecting a number of contiguously adjacent layers among the plurality of communication layers*” as recited in independent claim 7. Neither Elzur nor Ichimi has been, nor can be, relied upon to correct at least this deficiency of Ozawa.

Therefore, Applicants submit that claim 7 is are patentable over the asserted combination of prior art and respectfully request that the rejection of claim 7 under §103(a) be withdrawn.

Regarding claims 2, 4, 5, 9, 10, and 11:

As demonstrated above with respect to claim 1, Ozawa fails to disclose or suggest “*connection request generating means for generating a connection request containing a command and data required for connecting a number of contiguously adjacent layers among the plurality of communication layers*”. None of the Krishnamurthy, Pettus, Salokannel, Chen, or

Tada references have been, nor can be, relied upon to correct at least this deficiency of Ozawa. Dependent claims 2, 4, 5, and 9-11 are also distinguishable from the prior art at least due to their dependence from claim 1, directly or indirectly.

Therefore, Applicants submit that claims 2, 4, 5, and 9-11 are patentable over the asserted combinations of prior art and respectfully request that the rejection of said claims under §103(a) be withdrawn.

Regarding dependent claims 15 and 19-21:

As demonstrated above with respect to claim 13, Ozawa fails to disclose or suggest “*connection request receiving means for receiving a connection request containing a command and data required for connecting a number of contiguously adjacent layers among the plurality of communication layers*”. None of the Krishnamurthy, Pettus, Salokannel, Chen, or Tada references have been, nor can be, relied upon to correct at least this deficiency of Ozawa. Dependent claims 2, 4, 5, and 9-11 are also distinguishable from the prior art at least due to their dependence from claim 1, directly or indirectly.

Therefore, Applicants submit that claims 2, 4, 5, and 9-11 are patentable over the asserted combinations of prior art and respectfully request that the rejection of said claims under §103(a) be withdrawn.

New Claims

New claims 24-27 have been added through this Amendment. Claims 24-26 are considered to be in condition for allowance at least due to their dependence upon claims 1 and 24. No new matter has been entered.

CONCLUSION

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. Notice of same is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John R. Sanders, Reg. No. 60,166

at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By  9/8/09

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Attachment: APPENDIX A: English Language Translations

APPENDIX A: English Language Translations

Paragraphs [0022] through [0025] of Ozawa

[0022] Upon acceptance of a connection request (1) from the IrLMP layer 11, the IrLAP layer 12 of the infrared communications protocol 1 immediately generates a connection handle (2) so as to notify the IrLMP layer 11 of the connection handle (2).

[0023] Then, the IrLAP layer 12 transmits an SNRM frame (3) to the IrLAP layer 22 of the infrared communications protocol 2. The SNRM frame (3) is transmitted from the IrLAP layer 12 to the IrLAP layer 22 via infrared communication.

[0024] Upon reception of the SNRM frame (3) from the IrLAP layer 12, the IrLAP layer 22 outputs a connection request (4) to the TrLMP layer 21. In response to the connection request (4), the IrLMP layer 21 transmits a connection response (5) to the IrLAP layer 22. Upon reception of the connection response (5), the IrLAP layer 22 transmits a UA frame (6) to the IrLAP layer 12. The UA frame (6) is transmitted from the IrLAP layer 22 to the IrLAP layer 12 also via infrared communication.

[0025] Upon reception of the UA frame (6) from the IrLAP layer 22, the IrLAP layer 12 notifies the IrLMP layer 11 of a connection confirmation (7).

Paragraphs [0050] through [0053] of Takahashi

[0050] An outline of data transmission by the communication procedure illustrated in Fig. 4 is the same as that illustrated in Fig. 13. When a transmission request (1) is issued by an upper layer of a device A, a device B cannot receive data because its receive buffer is in a full state. Accordingly, the IrLAP control section 3 of the device A carries out retransmission of a data frame (5). In the retransmission process, a disconnection request (6) is issued by the upper layer. Assume each of the devices A and B is formed of sections illustrated in Fig. 1.

[0051] Upon issuance of the disconnection request (6) by the upper layer, the IrLMP control section 2 issues a Data.request (7) in order to issue an IrLMP-level disconnection request. When the request acceptance section 31 of the IrLAP control section 3 accepts the

Data.request, the IrLAP control section 3 causes the disconnection request detection section 33 to check data contents to determine whether or not it is an IrLMP-level disconnection request.

[0052] In this case, the Data.request (7) accepted by the request acceptance section 31 is an IrLMP-level disconnection request. Therefore, the memory monitoring control section 32 of the IrLAP control section 3 discards the data frame (5), which is in the retransmission process. This makes it possible to transmit a data frame (8), which is an IrLMP-level disconnection request. If the full state of the receive buffer of the device B is dissolved, next data to be received by the device B is the IrLMP-level disconnection request (8). The IrLAP control section 3 of the device B notifies the IrLMP control section 2 of a Data.indication (9). The IrLMP control section 2 checks data contents. Since it is an IrLMP-level disconnection request, the IrLMP control section 2 notifies an upper layer of the device B of a disconnection request reception (10).

[0053] Then, the IrLMP control section 2 of the device A issues a Disconnect.request (12), which is an IrLAP-level disconnection request. Upon issuance of the Disconnect.request (12), the IrLAP control section 3 transmits a DISC frame (13) to the device B. In response to this, the device B transmits a UA frame (15), thereby completing a disconnection process.